

Marathon Oil Company

Operations Summary Report

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Legal Well Name: INDIAN HILLS UNIT NO. 37
 Common Well Name: INDIAN HILLS UNIT NO. 37
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 12/13/2002 Spud Date: 12/19/2002
 Rig Release: End:
 Rig Number: 4 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/21/2002	06:00 - 18:00	12.00	RIG	DMOB	MIRU	Location built by Key Const. Drilled & set 40' of 14" conductor pipe (GL). Cemented to surface. MIRU McVay #4. Held safety & spud meeting on Friday. Finished rigging up. Welded on 13 5/8" flange on conductor pipe. NU 13 5/8" 3 M Hydril & drilling spool. Shut down for night.
12/22/2002	06:00 - 08:00	2.00	WAIT	Crew	MIRU	Shut down.
	08:00 - 09:30	1.50	CHECK	SURF	MIRU	Perform Check of Surface Equipment. Start motors. Held safety meeting.
	09:30 - 12:45	3.25	DRILL	AIR	DRLSUR	Spudded 12 1/4" hole @ 0900 hrs. CST. Air drilled f/ 57'-299'.
	12:45 - 14:00	1.25	SURV	GYRO	DRLSUR	Survey. RU Wildcat Auto Driller.
	14:00 - 17:30	3.50	DRILL	AIR	DRLSUR	Air Drilling
	17:30 - 17:45	0.25	SURV	GYRO	DRLSUR	Survey
	17:45 - 20:30	2.75	DRILL	AIR	DRLSUR	Air Drilling. 3" stream of water @ 706'. Switch to mist. 4 GPH of soap.
	20:30 - 21:15	0.75	CIRC	FILL	DRLSUR	Pumped on hole to unload water. No drag. No returns.
	21:15 - 22:15	1.00	DRILL	AIR	DRLSUR	Mist drilled f/ 706' t/ 737'. No drag on connection. Mist drilled f/ 737' t/ 763'. Tight hole after making connection.
	22:15 - 06:00	7.75	FISH	JAR	DRLSUR	Backreaming out of hole due to a large boulder falling in on top of DC or hammer. Pipe can rotate OK & movement downward with drillstring. Can not go up with drillstring. Max pull-225,000# Made 13' of hole in 7 hrs. Pumped 50 bbl sweep @ a -80 vis. Pumped water @ 12 BPM for 15 mins. Torque is less without pumping air or water. Pulled free @ 0550 aM. TOO H w/ Hammer @ 0600 hrs.
12/23/2002	06:00 - 07:30	1.50	TRIP	BHA	DRLSUR	Trip for BHA (Hammer). Found pin broke on Hammer. Left Hammer in hole. (6.90')
	07:30 - 11:00	3.50	TRIP	BBHD	DRLSUR	BHA/Bit Handling L/D Hammer. PU Bit, Shock sub, 12- 6 1/2" DC's, jars, HWDP. TIH.
	11:00 - 12:30	1.50	CIRC	FILL	DRLSUR	Tagged top of fish @ 756'.
	12:30 - 14:30	2.00	CIRC	CLN	DRLSUR	Pumped hole @ 3400 SCF of mist. No returns.
	14:30 - 17:00	2.50	TRIP	BHA	DRLSUR	Had to backream from 746'-718' due to boulder in hole. TOO H. L/D Shocks sub.
	17:00 - 18:00	1.00	WAIT	EQIP	DRLSUR	Wait on Shoe.
	18:00 - 20:00	2.00	TRIP	BBHD	DRLSUR	PU 11 3/4" OD x 9 7/8" ID shoe. TIH.
	20:00 - 21:30	1.50	DRILL	WSHR	DRLSUR	Reamed 65' to bottom. Boulder on top of shoe.
	21:30 - 06:00	8.50	FISH	MLCT	DRLSUR	Mill/Cut. Milled over Hammer @ 756'. Cut 17" @ 0600 hrs. Will attempt to cut 24". Mist drilling 4 GPH of Soap @ 12 BPH of fluid. 3400 SCF of Air. No returns.
						Mill/Cut. Cut 16" fishing neck onto Hammer @ 756'.
12/24/2002	06:00 - 06:15	0.25	FISH	MLCT	DRLSUR	Backreamed & jarred f/ 756' t/ 706'. Free after @ 706'.
	06:15 - 14:15	8.00	TRIP	BHA	DRLSUR	TOOH. L/D shoe. Good marking on shoe.
	14:15 - 14:30	0.25	TRIP	BHA	DRLSUR	Trip in w/ 12 1/4" bit.
	14:30 - 17:30	3.00	TRIP	BIT	DRLSUR	Washed 65' t/ top of fish @ 756'. Tagged 1' above fish. Washed t/ top of fish. Pumped on hole w/ air. No returns.
	18:30 - 19:30	1.00	CIRC	WSHD	DRLSUR	TOOH w/ 12 1/4" Bit. (small amount of drag 30' above fish.) L/D bit. PU 11 3/4" overshot w/ 9 7/8" grapple.
	19:30 - 21:00	1.50	TRIP	BBHD	DRLSUR	Run in Hole with 11 3/4" overshot.
	21:00 - 23:00	2.00	FISH	RFSH	DRLSUR	Washed over fish. (60' above fish) Engaged fish. Jamming.
	23:00 - 01:00	2.00	FISH	EGNG	DRLSUR	Backreamed f/ 756' t/ 746'. Backreaming & jamming @ 0600 hrs.
	01:00 - 06:00	5.00	FISH	PFSH	DRLSUR	Pull out of Hole with Fishing Tools / Fish. No recovery. Had broke grapple.
						TIH w/ DC's & HWDP.
12/25/2002	06:00 - 08:00	2.00	FISH	PFSH	DRLSUR	LD/HWDP & DC's. PU 23 jts of 4 1/2", 19.5 #DP off back.
	08:00 - 09:00	1.00	TRIP	BIT	DRLSUR	ND & removed 13 5/8" Hydril with Rotating head.
	09:00 - 11:00	2.00	TRIP	LDDP	DRLSUR	Dumped 20 yds of ready-mix down hole.
	11:00 - 15:30	4.50	NUND	DBOP	DRLSUR	
	15:30 - 16:00	0.50	CEMT	PLUG	DRLSUR	